

SEQUENCE LISTING

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<120> METHODS OF MODIFYING CELL STRUCTURE AND REMODELING
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<210> 1

<211> 296

<212> PRT

<213> Homo sapiens

<400> 1

Met Asn Ala Glu Pro Glu Arg Lys Phe Gly Val Val Val Val Gly Val
1 5 10 15

Gly Arg Ala Gly Ser Val Arg Met Arg Asp Leu Arg Asn Pro His Pro
20 25 30

Ser Ser Ala Phe Leu Asn Leu Ile Gly Phe Val Ser Arg Arg Glu Leu
35 40 45

Gly Ser Ile Asp Gly Val Gln Gln Ile Ser Leu Glu Asp Ala Leu Ser
50 55 60

Ser Gln Glu Val Glu Val Ala Tyr Ile Cys Ser Glu Ser Ser Ser His
65 70 75 80

Glu Asp Tyr Ile Arg Gln Phe Leu Asn Ala Gly Lys His Val Leu Val
85 90 95

Glu Tyr Pro Met Thr Leu Ser Leu Ala Ala Ala Gln Glu Leu Trp Glu
100 105 110

Leu Ala Glu Gln Lys Gly Lys Val Leu His Glu Glu His Val Glu Leu
115 120 125

Leu Met Glu Glu Phe Ala Phe Leu Lys Lys Glu Val Val Gly Lys Asp
 130 135 140

Leu Leu Lys Gly Ser Leu Leu Phe Thr Ser Asp Pro Leu Glu Glu Asp
 145 150 155 160

Arg Phe Gly Phe Pro Ala Phe Ser Gly Ile Ser Arg Leu Thr Trp Leu
 165 170 175

Val Ser Leu Phe Gly Glu Leu Ser Leu Val Ser Ala Thr Leu Glu Glu
 180 185 190

Arg Lys Glu Asp Gln Tyr Met Lys Met Thr Val Cys Leu Glu Thr Glu
 195 200 205

Lys Lys Ser Pro Leu Ser Trp Ile Glu Glu Lys Gly Pro Gly Leu Lys
 210 215 220

Arg Asn Arg Tyr Leu Ser Phe His Phe Lys Ser Gly Ser Leu Glu Asn
 225 230 235 240

Val Pro Asn Val Gly Val Asn Lys Asn Ile Phe Leu Lys Asp Gln Asn
 245 250 255

Ile Phe Val Gln Lys Leu Leu Gly Gln Phe Ser Glu Lys Glu Leu Ala
 260 265 270

Ala Glu Lys Lys Arg Ile Leu His Cys Leu Gly Leu Ala Glu Glu Ile
 275 280 285

Gln Lys Tyr Cys Cys Ser Arg Lys
 290 295

<210> 2
 <211> 1070
 <212> DNA
 <213> Homo sapiens

<400> 2
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 atgaatgcag agcccgagag gaagtggc gtgggtgtgg ttgggtgtgg ccgagccggc 120
 tccgtgcgga tgagggactt gcggaatcca cacccttcct cagcgttcct gaacctgatt 180
 ggttcgtgt cgagaaggga gctcgggagc attgatggag tccagcagat ttctttggag 240
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 gaggactaca tcagggcagtt ccttaatgct ggcaagcacg tccttgtgga ataccccatg 360
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gtggggaaag acctgctgaa agggtcgtc ctcttcacat ctgaccgggtt ggaagaagac 540
cggtttggct tccctgcatt cagcggcatc tctcgactga cctggctggt ctccctctt 600
ggggagctt ctcttgtgtc tgccactttg gaagagcgaag aggaagatca gtatatgaaa 660
atgacagtgt gtctggagac agagaagaaa agtccactgt catggattga agaaaaagga 720
cctggctcaa aacgaaacag atatttaagc ttccatttca agtctgggtc cttggagaat 780
gtgccaatg taggagtgaa taagaacata tttctgaaag atcaaaaat atttgtccag 840
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tgcctggggc ttgcagaaga aatccagaaa tattgtgtt caaggaagta agaggaggag 960
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<210> 3

<211> 296

<212> PRT

<213> Homo sapiens

<400> 3

Met Asn Thr Glu Pro Glu Arg Lys Phe Gly Val Val Val Val Gly Val
1 5 10 15

Gly Arg Ala Gly Ser Val Arg Met Arg Asp Leu Arg Asn Pro His Pro
20 25 30

Ser Ser Ala Phe Leu Asn Leu Ile Gly Phe Val Ser Arg Arg Glu Leu
35 40 45

Gly Ser Ile Asp Gly Val Gln Gln Ile Ser Leu Glu Asp Ala Leu Ser
50 55 60

Ser Gln Glu Val Glu Val Ala Tyr Ile Cys Ser Glu Ser Ser Ser His
65 70 75 80

Glu Asp Tyr Ile Arg Gln Phe Leu Asn Ala Gly Lys His Val Leu Val
85 90 95

Glu Tyr Pro Met Thr Leu Ser Leu Ala Ala Ala Gln Glu Leu Trp Glu
100 105 110

Leu Ala Glu Gln Lys Gly Lys Val Leu His Glu Glu His Val Glu Leu
115 120 125

Leu Met Glu Glu Phe Ala Phe Leu Lys Lys Glu Val Val Gly Lys Asp
130 135 140

Leu Leu Lys Gly Ser Leu Leu Phe Thr Ala Gly Pro Leu Glu Glu Glu
145 150 155 160

Arg Phe Gly Phe Pro Ala Phe Ser Gly Ile Ser Arg Leu Thr Trp Leu
165 170 175

Val Ser Leu Phe Gly Glu Leu Ser Leu Val Ser Ala Thr Leu Glu Glu
180 185 190

Arg Lys Glu Asp Gln Tyr Met Lys Met Thr Val Cys Leu Glu Thr Glu
195 200 205

Lys Lys Ser Pro Leu Ser Trp Ile Glu Glu Lys Gly Pro Gly Leu Lys
210 215 220

Arg Asn Arg Tyr Leu Ser Phe His Phe Lys Ser Gly Ser Leu Glu Asn
225 230 235 240

Val Pro Asn Val Gly Val Asn Lys Asn Ile Phe Leu Lys Asp Gln Asn
245 250 255

Ile Phe Val Gln Lys Leu Leu Gly Gln Phe Ser Glu Lys Glu Leu Ala
260 265 270

Ala Glu Lys Lys Arg Ile Leu His Cys Leu Gly Leu Ala Glu Glu Ile
275 280 285

Gln Lys Tyr Cys Cys Ser Arg Lys
290 295

<210> 4

<211> 295

<212> PRT

<213> Rattus norvegicus

<400> 4

Met Asp Ala Glu Pro Lys Arg Lys Phe Gly Val Val Val Val Gly Val
1 5 10 15

Gly Arg Ala Gly Ser Val Arg Leu Arg Asp Leu Lys Asp Pro Arg Ser
20 25 30

Ala Ala Phe Leu Asn Leu Ile Gly Phe Val Ser Arg Arg Glu Leu Gly
35 40 45

Ser Leu Asp Glu Val Arg Gln Ile Ser Leu Glu Asp Ala Leu Arg Ser
50 55 60

Gln Glu Ile Asp Val Ala Tyr Ile Cys Ser Glu Ser Ser Ser His Glu

65.....70.....75.....80.....
Asp Tyr Ile Arg Gln Phe Leu Gln Ala Gly Lys His Val Leu Val Glu.....
85.....90.....95.....
Tyr Pro Met Thr Leu Ser Phe Ala Ala Ala Gln Glu Leu Trp Glu Leu.....
100.....105.....110.....
Ala Ala Gln Lys Gly Arg Val Leu His Glu Glu His Val Glu Leu Leu.....
115.....120.....125.....
Met Glu Glu Phe Glu Phe Leu Arg Arg Glu Val Leu Gly Lys Glu Leu.....
130.....135.....140.....
Leu Lys Gly Ser Leu Arg Phe Thr Ala Ser Pro Leu Glu Glu Glu Arg.....
145.....150.....155.....160.....
Phe Gly Phe Pro Ala Phe Ser Gly Ile Ser Arg Leu Thr Trp Leu Val.....
165.....170.....175.....
Ser Leu Phe Gly Glu Leu Ser Leu Ile Ser Ala Thr Leu Glu Glu Arg.....
180.....185.....190.....
Lys Glu Asp Gln Tyr Met Thr Val Gln Leu Glu Thr Gln Asn.....
195.....200.....205.....
Lys Gly Leu Leu Ser Trp Ile Glu Glu Lys Gly Pro Gly Leu Lys Arg.....
210.....215.....220.....
Asn Arg Tyr Val Asn Phe Gln Phe Thr Ser Gly Ser Leu Glu Glu Val.....
225.....230.....235.....240.....
Pro Ser Val Gly Val Asn Lys Asn Ile Phe Leu Lys Asp Gln Asp Ile.....
245.....250.....255.....
Phe Val Gln Lys Leu Leu Asp Gln Val Ser Ala Glu Asp Leu Ala Ala.....
260.....265.....270.....
Glu Lys Lys Arg Ile Met His Cys Leu Gly Leu Ala Ser Asp Ile Gln.....
275.....280.....285.....
Lys Leu Cys His Gln Lys Lys.....
290.....295.....

<210>. 5
<211>. 1081
<212>. DNA

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<213> Rattus norvegicus
<400> 5
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gaaatttggc gtggtagtgg ttgggttgtgg cagagctggc tcggtgaggc tgagggactt 180
gaaggatcca cgctctgcgg cattcctgaa cctgatttggc tttgtgttca gacgagagct 240
tgggagccctt gatgaagtac ggcagatttc ttttggaaat gctctccggc gccaagagat 300
tgcgtgtcgcc tatatttgcgat gtgagagttc cagccatgaa gactatatac ggcagtttct 360
gcaggctggc aagcatgttcc tcgttggaaa ccccatgaca ctgtcatttgc cggcggccca 420
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ccgcatttctt ccgcctgaccc ggctggctc cctcttcggc gagtttctc ttatttctgc 660
caccttggaa gagcggaaaag aggatcagta tatgaaaatgc accgtgcggc tggagacccca 720
gaacaagggt ctgcgtgtcat ggatttggaa gaaaggccctt ggctaaaaaa gaaacagata 780
tgtaaacttc cagtttactt ctgggtccctt ggagggacttgc ccaagtgttag gggtaataa 840
gaacattttc ctgaaaatgc aggatatatatt tgttcagaag ctcttagacc aggtctctgc 900
agaggacccgt gctgcgtgaga agaagcgcatttgc ctggggctgg ccagcgcacat 960
ccagaagctt tgccaccaga agaagtgaag aggaagcttc agagacttctt gaagggggcc 1020
agggtttggc cctatcaacc attcacctt agctcttaca attaaacatg tcagataaac 1080
a 1081

<210> 6.

<211> 6.

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hydrophobic

domain of BVR

<220>

<221> PEPTIDE

<222> (2).

<223> where X is any aa

<400>. 6.

Phe Xaa Val Val Val Val

1 5.

<210> 7

<211> 6

<212> PBT

<213> Artificial Sequence

400 155 45 84 15
PTD of the CTD

<220>
<223> Description of Artificial Sequence: nucleotide
binding domain of BVR

<220>
<221> PEPTIDE
<222> (2)
<223> where X is any aa

<220>
<221> PEPTIDE
<222> (4)..(5)
<223> where X is any aa

<400> 7
Gly Xaa Gly Xaa Xaa Gly
1 5

<210> 8
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oxidoreductase domain of BVR

<400> 8
Ala Gly Leu His Val Leu Val Glu
1 5

<210> 9
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: leucine
zipper of BVR

<220>
<221> PEPTIDE
<222> (2)..(7)
<223> where X is any aa

<220>

<221>. PEPTIDE .
<222>. (9)..(14).
<223>. where X is any aa .

<220> .
<221>. PEPTIDE .
<222>. (16)..(21).
<223>. where X is any aa .

<220> .
<221>. PEPTIDE .
<222>. (23)..(28).
<223>. where X is any aa .

<400>. 9.
Leu Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Lys Xaa .
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Leu .
20 25

<210>. 10.
<211>. 3.
<212>. PRT .
<213>. Artificial Sequence .

<220> .
<223>. Description of Artificial Sequence:.. kinase motif .
of BVR .

<400>. 10.
Ser Arg Arg .
1

<210>. 11.
<211>. 3.
<212>. PRT .
<213>. Artificial Sequence .

<220> .
<223>. Description of Artificial Sequence:.. kinase motif .
of BVR .

<400>. 11.
Lys Gly Ser .
1

<210> 12
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: kinase motif
of BVR

<220>
<221> PEPTIDE
<222> (3)
<223> where X is any aa

<400> 12
Phe Thr Xaa
1.

<210> 13
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: nuclear
localization signal of BVR

<400> 13
Gly Leu Lys Arg Asn Arg Tyr
1. 5

<210> 14
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: methylation
site of BVR

<400> 14
Pro Gly Leu Lys Arg
1. 5

<210>. 15.....
<211>. 14.....
<212>. PRT.....
<213>. Artificial Sequence.....

<220>.....
<223>. Description of Artificial Sequence: zinc finger.....
..... domain of BVR

<220>.....
<221>. PEPTIDE ..
<222>. (3)..(12).....
<223>. where X is any aa

<400>. 15.....
His Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Cys.....
1 5 10

<210>. 16.....
<211>. 7.....
<212>. PRT.....
<213>. Artificial Sequence

<220>.....
<223>. Description of Artificial Sequence: protein

..... kinase C enhancing domain

<220>.....
<221>. PEPTIDE ..
<222>. (5).....
<223>. where X is any aa

<400>. 16.....
Lys Lys Arg Ile Xaa His Cys.....
1 5

<210>. 17.....
<211>. 8.....
<212>. PRT.....
<213>. Artificial Sequence

<220>.....
<223>. Description of Artificial Sequence: protein

..... kinase C inhibiting domain

<220>.....
<221>. PEPTIDE ..
<222>. (3) ..
<223>. where X is any aa ..

<220>.....
<221>. PEPTIDE ..
<222>. (5)..(7) ..
<223>. where X is any aa ..

<400> 17 ..
Gln Lys Xaa Cys Xaa Xaa Xaa Lys ..
1 5 ..